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ABSTRACT

A survey of attrition in professional special education personnel in Michigan was undertaken through an analysis of computer tape copies of the Michigan Professional Personnel Register and of the Teacher Certification Master File. Among findings was that the number of new positions continued to grow in assignments with mentally impaired, speech disabled, emotionally impaired, visually impaired, hearing impaired, and learning disabled students. Social work, school psychology, consultation for the mentally handicapped, and occupational/physical therapy positions also increased. The annual attrition rate for special education teachers was approximately 11%. Recommendations are made for establishing a common coding system for data files and conducting a statewide study on teacher absence and substitute teacher qualifications. (CL)

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CERTIFICATION, EMPLOYMENT AND ATTRITION OF SPECIAL EDUCATION PROFESSIONAL PERSONNEL IN MICHIGAN

by

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September 8, 1980

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This study was undertaken to update a previous investigation(1) of Special Education professional personnel employed in Michigan Public Schools. The following questions or tasks were posed:

1. How many beginning professional personnel (zero years teaching experience) were newly employed in Special Education assignments in Michigan Public Schools in the 1979-80 school year?

2. How many professional personnel with one or more years teaching experience were employed in Special Education assignments in 1979-80?

3. How many Special Education professional personnel who were employed in 1978-79 returned to Special Education assignments in 1979-80?

4. For those Special Education professional personnel employed in 1979-80, provide descriptive summaries for each disability category using the following variables:

   A. Age distribution

   B. Salary distribution

   C. Employment levels

   D. Highest degree achieved

5. For each disability category, determine the cumulative attrition (loss of professionals) for each year through 1979-80.

6. For each disability category, determine the number of new endorsements recommended by Michigan teacher education institutions.

7. Provide some empirical estimate of the availability of qualified substitute teachers employed to replace absent teachers in Special Education assignments in Michigan Public Schools.

PROCEDURES

For information regarding employment, the researcher used computer tape copies of the Michigan Professional Personnel Register for the school years 1973-74, 1974-75, 1975-76, 1976-77, 1977-78, 1978-79, and 1979-80. These tapes were provided by the Teacher Preparation and Certification services, Michigan Department of Education(2). The Register includes descriptive information about the professional personnel employed in Michigan Public Schools in the following Special Education assignments: mentally handicapped, speech impaired, orthopedically handicapped, school social worker, emotionally impaired, psychologist, homebound, teacher counselor for physically handicapped, blind, deaf, teacher of trainable, consultant for mentally handicapped, learning disabled, occupational/physical therapy.

In dealing with the question of attrition, the researcher used the social security number of each person to determine whether or not he/she returned to a Special Education assignment in Michigan Public Schools.

For information regarding certification, the researcher used

computer tape copies of the Teacher Certification Master File, which were provided by the Teacher Preparation and Certification Services, Michigan Department of Education. This file indicates the endorsements for each certified teacher as well as the institution and year when the endorsements were recommended.

The Michigan Department of Education customarily counts the number of provisional certificates and endorsements issued during a fiscal year, July 1, 1978 through June 30, 1979. However, it takes time to secure, verify, and process the certificate recommendations from each teacher education institution. Since the annual report including graduates of December 1979 would not be completed until about September 1980, the researcher elected to use the calendar year, January 1 1979 through December 31 1979, for the count of provisional certificates and endorsements issued.

A sample of data for Special Education teachers was selected from eight school districts in southeastern Michigan. The data indicated the number of teacher absences during the 1978-79 school year as well as the qualifications of substitute teachers employed by the districts to replace the absent Special Education teachers.

The social security numbers of these teachers and substitute teachers were used with the Michigan Professional Personnel Register and the Certification Master File to expand the available information about these teaching personnel.

FORTRAN and STDS programs were used with the conventional statistical programs to collect and analyze the data in order to answer the preceding questions.

RESULTS

Total Employed: Table 1 shows the total number of professional personnel who had either a major or secondary assignment in Special Education for each year from 1973-74 through 1979-80. The table shows the number of persons in each category of Special Education, while the number in parentheses shows the annual change in number of persons in that category. For example, there were 2245 teachers of mentally impaired (SA) pupils in 1973-74 and that number increased in 1974-75 to 2314 teachers which represents a 3% increase. The total number of teachers in this category has increased each year, with the largest increase occurring in 1976-77 when 2898 teachers were employed representing an 18% increase over the preceding year. Similar interpretations may be obtained for each row in Table 1.

The data indicate substantial increases in the total number of assignments in emotionally impaired (SE), learning disabled (SM), school psychologist (SG), and therapists (NU). There are modest increases in the number of social workers (SD), speech impaired (SB), mentally impaired (SA), consultant for mentally impaired (SU), blind (SK), deaf (SL). There appears to be a stable balance of personnel employed to work with orthopedic (SC), homebound (SH), teacher consultant for phsyically impaired (SI), and trainable (ST). The

classification of diagnostician (SF) is being replaced by the school psychologist and this explains the decrease in this category.

Newly Employed: Table 2 shows the number of newly employed professional personnel for each category from 1974-75 through 1979-80. The total number of newly employed teachers has been stable at slightly more than 2000 persons employed each year for the last three years. Although there are small increases in new positions in mentally impaired (SA) and learning disabled (SM), the general impression indicates stability with slight annual increases or decreases.

Table 3 provides descriptive statistics for employment of beginning professional personnel (zero years teaching experience) in each category for the 1979-80 school year. Table 4 contains descriptive statistics of newly employed professionals who had previous teaching experience. For each category, the tables show the number of newly employed persons, sex, average age, highest degree, instructional levels, and average salary.

Table 5 provides a similar summary of the characteristics of all Special Education professional personnel who were employed in 1979-80. For this group, Table 6 shows the age distribution of persons employed in each category of Special Education. Approximately 3/4 of the teachers were under the age of 41 years. This was also characteristic of the large Special Education areas of mentally impaired (SA), speech impaired (SB), emotionally impaired (SE), and learning disabled (SM).

Somewhat older personnel were found among social workers (SD), homebound (SH), consultant for physically impaired (SI), school psychologist (SG), and consultant for mentally impaired (SU).

Table 7 provides a comparison of the number of Special Education professional personnel who returned from the preceding year and the number of newly employed professional personnel for that year.

The total number of Special Education professionals has increased about 6% each year since 1976-77. As the total number has increased, the number of returning Special Education teachers has also increased each year. The number of returning teachers represents about 83% of the total group.

On the other hand, the number of newly employed Special Education professionals (experienced and beginning teachers) has remained very stable at slightly more than 2000 persons for each of the last three years. The percent decrease shown in Table 7 is due to the same number being divided by a larger and larger base number.

Attrition: Table 8 shows the cumulative loss of Special Education professionals during six years. Of the 6889 teachers employed in 1973-74, there were 4109 or 60% of them remaining in Special Education assignments in 1979-80. If one looks along the diagonal rows of data in Table 8, the percent returning after one year is 88% to 89%. For the second year the rate of returning teachers is about 81%. For the

years 3 through 6, the rates are approximately 73%, 68%, 64%, and 60% respectively. It is also notable that the rate of loss is decreasing slightly. That is, the expected loss of 1973-74 teachers after 2 years was 21% or 79% returning in 1975-76. However, Table 8 shows that the expected loss of 1977-78 teachers after 2 years was 18% or 82% returning in 1979-80. This trend toward decreasing attrition is consistently found among Michigan teachers in assignments other than Special Education.

Table 9 shows the annual loss of Special Education personnel in various teaching assignments during the six years between 1973-74 and 1979-80. Columns "A" and "B" show that there were 2149 teachers of mentally impaired pupils (SA) employed in 1973-74, but only 1258 or 58% were employed in Special Education assignments in 1979-80.

Table 10 shows the estimated number of initial provisional certificate endorsements in Special Education for the calendar years 1977 and 1978. Overall, there was an increase of 50 endorsements or 3.2% increase. There were slight decreases in the number of teachers of speech (SB), emotionally impaired (SE), and hearing impaired (SL), while all other areas increased in total endorsements.

Table 11 shows comparable data for the calendar years 1978 and 1979. There was an <u>overall decrease</u> in the number of total initial provisional certificate endorsements by -162 or -10%. In 1979, endorsements for emotionally impaired (SE) and hearing impaired (SL)

displayed slight increases, while all other areas decreased in the number of initial endorsements.

Table 12 shows the initial provisional certificate endorsements for Special Education teachers by Michigan institutions in the calendar year 1979. The institution is identified in the first column. The next eight columns show the Special Education code letters and the number of initial provisional certificate endorsements recommended by the institution for each Special Education area. The last three columns of Table 12 show the total endorsements recommended by an institution, the number of persons recommended, and the total number of certificates (persons) recommended for all teaching fields in calendar year 1978.

Table 13 provides similar information about the institutions and recommendations made in the calendar year 1978.

Table 14 indicates the total number of new endorsements in various categories of Special Education. When considered with information presented about initial provisional certificate endorsements in Table 12, it may be seen that 30% to 40% of the new endorsements recommended by Michigan institutions are made for beginning teachers. The remaining 60% to 70% of the endorsements in Special Education for 1979 were added to provisional/permanent/ continuing certificates of experienced teachers. It appears that as teaching opportunities have diminished in some teaching fields in

general education, experienced teachers have taken additional coursework at Michigan institutions in order to obtain an additional endorsement in one of the areas of Special Education. The magnitude of this change is about two experienced teachers receiving a new endorsement for every beginning teacher endorsed. In the case of endorsements for learning disabled (SM), more than 90% of the recommendations by Michigan institutions were to persons with certificates acquired prior to 1979.

Substitute Teachers: A sample of 841 substitute teachers was obtained from eight school districts in southeastern Michigan. These substitutes were employed during the 1978-79 school year. Within the sample there were substitutes who had some Special Education endorsement on a provisional/permanent/continuing certificate. The endorsements were determined by using the social security numbers of the substitutes to select the endorsement records from the Certificate Master File.

A second sample of 2751 teachers was obtained from these districts. It indicated the number of paid absences of all teachers employed by the districts during the 1978-79 school year. For this group, the average teacher was absent 7.8 days and the absence rate (days absent / 180 days) was 4.3.

The social security numbers of these teachers were used to select the corresponding records from the Professional Personnel Register for

1978-79. In this way it was possible to relate the number of absences to teaching fields, age, experience, salary, and other factors.

The set of 257 Special Education teachers was selected from the sample of 2751 teachers. Table 15 shows some of the characteristics of this group. Some special areas (SA, SB, SD, SE, SM) had samples greater than 25 persons and the indications of days absent, absence rate, estimated total absences may be fairly accurate indicators of traits of Special Education personnel in public schools in southeastern Michigan.

As shown in the table, the absence rate is high for teachers of mentally handicapped (SA), speech impaired (SB), and emotionally impaired (SE) when compared to the absence rate for all teachers in the sample.

In section B of Table 15 there were other special areas reported, but the samples are very small and the numeric values may be unreliable. They are reported in order to provide some crude indication of the extent of absences among teachers in these special areas.

In Table 16 a comparison is drawn between absences of teachers in seven areas of Special Education and substitute teachers available in the district who had provisional/permanent/continuing certificate endorsements in these areas. Although the substitute teachers with

Special Education endorsements also had endorsements in other teaching fields, it was assumed, that all of their days as a substitute were in one of the areas of Special Education. This assumption was made in order to consider the maximum number of Special Education substitute teachers available to replace absent teachers in Special Education assignments.

If one considers only the totals in Table 16, it appears that there are shortages of qualified substitutes in learning disabilities (SM) and speech impaired (SB). However school districts B, D, and F did not have a sufficient number of qualified substitutes for absent teachers of mentally impaired (SA). Similar deficiencies may be observed in the table for other school districts in providing qualified substitute teachers in the other areas of Special Education.

When qualified Special Education teachers were not available, the school districts evidently used teachers with general education endorsements on provisional/permanent/continuing certificates or persons with 90-day permits. Of the 841 substitutes in the sample, 59 had some Special Education endorsement, 529 others had provisional/permanent/continuing certificates, and 253 had special teaching permits requested by the school districts.

It may be that substitute teachers with some training in helping pupils with special impairments were used in all the districts to replace absent teachers in Special Education assignments. However, it

is also possible that the districts may often be compelled to use substitute teaching personnel with little or no training in working with handicapped pupils.

The writer assumes that each and every one of the 180 days in the school year is important. This is slightly less than 1/2 of the calendar year. The loss of any one of these school days and the learning opportunities which they provide is a substantial loss to the pupils.

Need For Special Education Teachers: The balance of supply and demand for teaching personnel depends upon the availability of adequate funds to employ the teachers needed by the schools. If we assume that local, State, and federal funds will be sufficient to enable school districts to comply with the provisions of the Mandatory Special Education Act, then we may estimate the level of demand for Special Education teachers in Michigan.

The number of new teaching positions continued to grow in the following teaching assignments: mentally impaired (SA), speech impaired (SB), social worker (SD), emotionally impaired (SE), school psychologist (SG), visually impaired (SK), hearing impaired (SL), consultant for mentally handicapped (SU), learning disabled (SM), occupational/physical therapy (NU). The data indicate that the increase of new positions has ended in orthopedic (SC), homebound (SH), consultant for physically impaired (si), and trainable (ST).

One should be mindful that the extent of annual growth is small for some areas such as hearing impaired (SL), which may involve an increase of less than a dozen new positions each year. On the other hand there have been annual increases of 200 to 300 new positions in learning disabilities (SM).

The annual attrition rate for Special Education teachers is about 11%, which is substantially higher than the 5% to 7% attrition rate which characterizes other teaching fields in K-12 school districts.

It seems evident that there will be a continued demand for more teachers in those areas where new positions have been created. The need for new personnel will be greater in areas where many new positions are created each year (learning disabilities (SM) and speech (SB)). In other Special Education areas the need will be dependent upon a relatively high attrition rate and the district's determination to secure qualified substitute teachers to replace absent Special Education teachers.

Recommendations: The two main recommendations of the previous study are reiterated:

1. The accuracy of future studies of the supply and demand for Special Education personnel will be substantially improved by establishing a common coding system so that data files collected by the Special Education Services and by the Teacher Preparation and

Certification Services can be related. It is the writer's understanding that efforts are underway to establish this common coding system within the Michigan Department of Education. This is a valuable contribution.

2. There should be a statewide study to determine the extent of absence among Special Education personnel, the qualifications of substitute teachers used intheir classes, and an annual census of substitute teachers utilized in Special Education classes in Michigan Public Schools.

The small sample of data collected in this study indicates that there is a need to improve the supply of qualified Special Education teachers who will be substitute teachers in their areas of expertise. The absence of data makes it difficult to estimate the extent of the deficiency throughout Michigan, but it may be a formidable one.

Providing qualified teachers to assist handicapped pupils every day of the school year is an important goal. The modest gains in learning and personal achievement are hard won by handicapped pupils and their teachers each and every day. We can only speculate upon the consequences of using untrained substitute teaching personnel to replace Special Education teachers who are absent several days during the school year.

Footnotes

1. Gary R. Smith,"Certification, Employment and Attrition of Special Education Professional Personnel in Michigan," Wayne State University, Detroit, Michigan, September 1979.

2. Although the raw data were provided by Teacher Preparation and Certfication Services, the writer is responsible for the analysis and interpretation of that data.

TABLE 1 -SPECIAL EDUCATION PROFESSIONAL PERSONNEL EMPLOYED IN MICHIGAN PUBLIC SCHOOLS (1973-1979)

	1973-4	1974-5	1975-6	1976-7	1977-78	1978-79	1979-80
Ment. Imp. (SA)	2,245	2,314 (.03)	2,452 (.06)	2,898 (.18)	2,985 (.03)	3,051 (.02)	3,159 (.04)
Speech Cor. (SB)	1,068	1,153 (.08)	1,220 (.06)	1,407 (.15)	1,436 (.02)	1,496 (.04)	1,540 (.03)
Orth.(SC)	194	208 (.07)	219 (.05)	274 (.25)	278 (.01)	279 (.00)	277 (-.01)
Soc. Work (SD)	796	867 (.09)	943 (.09)	925 (-.02)	936 (.01)	975 (.04)	996 (.02)
Emot. Imp. (SE)	767	911 (.16)	1,112 (.22)	1,288 (.16)	1,418 (.10)	1,593 (.12)	1,833 (.15)
Diag. (SF)	288	255 (-.11)	196 (-.23)	174 (-.11)	154 (-.11)	142 (-.08)	121 (-.15)
Psych. (SG)	196	297 (.52)	398 (.34)	475 (.19)	530 (.11)	562 (.06)	623 (.11)
Homebd. (SH)	143	149 (.04)	154 (.03)	171 (.11)	161 (-.06)	157 (-.02)	171 (.09)
T.C. Phy. (SI)	151	152 (.01)	140 (-.08)	122 (-.13)	121 (-.01)	106 (-.12)	110 (.04)
Blind (SK)	70	79 (.13)	86 (.09)	141 (.64)	153 (.09)	159 (.04)	180 (.13)
Deaf (SL)	314	348 (.11)	368 (.06)	440 (.20)	457 (.04)	463 (.01)	474 (.02)
Learn Dis. (SM)		122	663 (4.43)	955 (.44)	1,243 (.30)	1,566 (.26)	1,914 (.22)
Train. (ST)	422	469 (.11)	508 (.08	534 (.14)	511 (-.04)	543 (.06)	508 (-.06)
C. Ment. Hand. (SU)	185	207 (.12)	215 (.04)	208 (-.03)	216 (.04)	231 (.07)	284 (.23)
Occupt./Phys. Ther. (NU)	57	91 (.60)	142 (.56)	205 (.44)	220 (.07)	274 (.25)	317 (.16)
TOTALS	6,896	7,622 (.11)	8,816 (.16)	10,217 (.16)	10,819 (.06)	11,597 (.07)	12,507 (.08)

Interpretation: In 1978-79 there were 3,051 teachers of mentally handicapped pupils (SA) and in 1979-80 there were 3,159 teachers of mentally handicapped pupils (SA). This was a .04 increase.

TABLE 2 NEWLY EMPLOYED SPECIAL EDUCATION PROFESSIONAL PERSONNEL IN MICHIGAN PUBLIC SCHOOLS (1974-1979)

	1974-5	1975-6	1976-7	1977-8	1978-9	1979-80
Ment. Imp. (SA)	432	510 (.18)	752 (.47)	484 (-.36)	480 (-.01)	547 (.14)
Speech (SB)	234	207 (-.12)	326 (.57)	177 (-.46)	221 (.25)	205 (.-07)
Ortho (SC)	42	41 (-.02)	101 (.146)	42 (-.58)	27 (-.36)	32 (.19)
Soc. Work (SD)	153	167 (-.09)	99 (-.41)	119 (.20)	128 (.08)	130 (.02)
Emot. Imp. (SE,	321	394 (.23)	419 (.06)	470 (.12)	377 (-.20)	358 (.-05)
Diagn (SF)	25	16 (-.36)	13 (-.19)	8 (-.38)	12 (.50)	2 (-.83)
Sch. Psych. (SG)	93	96 (.03)	111 (.16)	84 (-.24)	96 (.14)	97 (.01)
Homebd. (SH)	31	20 (-.35)	48 (1.40)	16 (-.67)	16 (.00)	14 (.-13)
T.C. Phys (SI)	15	14 (-.07)	11 (-.21)	12 (.08)	6 (-50)	10 (.67)
Blind (SK)	18	20 (.11)	69 (2.45)	26 (-.62)	21 (-.15)	26 (.24)
Deaf (SL)	68	61 (.10)	179 (1.93)	72 (-.60)	66 (-08)	69 (.05)
Learn. Dis. (SM)	100	492 (3.92)	327 (-.34)	365 (.12)	399 (.09)	421 (.06)
Trainable (ST)	103	91 (-.12)	94 (.03)	65 (-.31)	81 (.25)	31 (.62)
C.M. Hand (SU)	32	25 (-.22)	14 (-.44)	19 (.36)	21 (.11)	25 (.19)
Occupt. Phys. Ther. (NU)	40	63 (.58)	52 (-.17)	58 (.12)	89 (.53)	84 (.-06)
Not Classified	5	7 (.40)	31 (3.43)	3 (-.90)	3 (.00)	1 (.-66)
TOTALS	1,712	2,224 (.30)	2,646 (.19)	2,020 (-.24)	2,043 (.01)	2,053 (.01)

Interpretation: The social security numbers of 1978-79 personnel were compared to social security numbers of professional employees in 1979-80. Those not matched were defined as "newly employed." here were 480 newly employed teachers of mentally impaired (SA) in 1978-79 and 547 newly employed in 1979-80. This was an increase of 14%.

TABLE 3 - BEGINNING PERSONNEL NEWLY EMPLOYED IN 1979-80 IN SPECIAL EDUCATION ASSIGNMENTS

					Highest Degree			Instructional Level				
Speciality	No.	Male	Female	Mean Age	BA	MED or Higher	All Grades	Elem.	Jr/Hi	Sr/Hi	Other	Mean Salary
Mentally Hand. (SA)	228	30	198	24	222	6	59	88	21	41	19	$11,836
Speech Corr. (SB)	70	2	68	24	29	41	39	26	2	1	2	12,256
Orth. Hand. (SC)	14	1	13	23	14	0	7	4	2	1	0	12,141
Social Worker (SD)	50	11	39	32	3	47	42	1	3	3	4	15,155
Emot. Impaired (SE)	191	24	167	24	188	3	35	73	40	29	14	11,699
School Psychologist (SG)	34	16	18	30	10	24	32	1	0	1	0	15,333
Homebound (SH)	4	0	4	23	4	0	3	1	0	0	0	9,931
Consult. P. Imp. (SI)	1	0	1	53	0	1	1	0	0	0	0	13,813
Blind (SK)	8	1	7	24	5	3	5	1	2	0	0	13,265
Hearing Imp. (SL)	22	2	20	23	21	1	3	8	6	3	2	12,075
Learn. Disabled (SM)	122	7	115	25	111	11	13	64	29	12	4	11,908
Trainable (ST)	10	3	7	25	10	0	10	0	0	0	0	13,346
Consult. Ment. Hand. (SU)	2	0	2	23	2	0	0	0	1	0	1	10,768
Occup./Physical Therapy (NU)	19	1	18	27	19	0	13	1	1	1	3	13,827
TOTALS	775	98	677	25	638	137	262	268	107	91	47	12,305

Interpretation: Only teachers with primary assignment in special education were included in the analysis. Beginning teachers had no previous teaching experience. There were 228 beginning teachers of mentally handicapped pupils employed in 1979-80. Of this group 30 were male and 198 were female, with an average age of 24 years.

TABLE 4 - EXPERIENCED PERSONNEL NEWLY EMPLOYED IN 1979-80 IN SPECIAL EDUCATION ASSIGNMENTS

Speciality	No.	Male	Female	Mean Age	Highest Degree: BA	Highest Degree: MED or Higher	Highest Degree: All Grades	Instructional Level: Elem.	Instructional Level: Jr/Hi	Instructional Level: Sr/Hi	Instructional Level: Other	Mean Salary
Mentally Hand. (SA)	304	49	255	30	226	78	87	115	47	37	18	$15,109
Speech Corr. (SB)	131	12	119	29	69	62	67	50	2	2	10	15,154
Orth. Hand. (SC)	18	1	17	29	16	2	9	5	1	2	1	14,895
Social Worker (SD)	79	27	52	36	9	70	59	11	1	5	3	17,361
Emot. Impaired (SE)	162	34	128	30	110	52	37	62	22	36	5	15,424
Diagn. (SF)	2	1	1	34	1	1	2	0	0	0	0	19,531
School Psychologist (SG)	63	24	39	33	6	57	57	5	1	0	0	16,803
Homebound (SH)	10	2	8	28	8	2	6	2	1	0	1	14,457
Consult. P. Imp. (SI)	9	3	6	32	6	3	5	3	0	1	0	16,418
Blind (SK)	18	5	13	28	11	7	13	5	0	0	0	15,447
Hearing Imp. (SL)	47	2	45	30	29	18	25	11	5	4	2	15,683
Learn. Disabled (SM)	286	29	257	33	108	178	45	124	58	48	11	16,645
Trainable (ST)	19	5	14	28	12	7	17	1	0	1	0	15,859
Consult. Ment. Hand. (SU)	22	5	17	34	10	12	8	9	3	2	0	16,496
Occup./Physical Therapy (NU)	65	7	58	30	60	5	40	15	4	3	3	15,671
TOTALS	1,235	206	1,029	31	681	554	477	418	145	141	54	15,842

Interpretation: Only teachers with primary assignment in special education were included in the analysis. Experienced teachers had one or more years of teaching experience. There were 304 experienced teachers of mentally handicapped pupils newly employed in 1979-80. Of this group 49 were male and 255 were female with an average of 30 years.

TABLE 5 - SPECIAL EDUCATION PROFESSIONAL PERSONNEL EMPLOYED IN 1979-80 IN SPECIAL EDUCATION ASSIGNMENTS IN MICHIGAN PUBLIC SCHOOLS

					Highest Degree			Instructional Level				
Speciality	No.	Male	Female	Mean Age	BA	MED or Higher	All Grades	Elem.	Jr/Hi	Sr/Hi	Other	Mean Salary
Mentally Hand. (SA)	3,126	755	2,371	33	1,987	1,139	917	1,088	407	519	195	$17,348
Speech Corr. (SB)	1,528	199	1,329	33	657	871	852	563	21	21	71	17,926
Orth. Hand. (SC)	262	36	226	33	162	100	105	108	16	19	14	18,079
Social Worker (SD)	990	311	679	41	68	922	777	131	17	38	23	20,499
Emot. Impaired (SE)	1,687	419	1,268	30	1,084	603	368	705	310	205	99	16,248
Diagn. (SF)	119	60	59	43	4	115	90	13	1	1	14	23,305
School Psychologist (SG)	619	327	292	37	42	577	546	39	5	13	16	20,200
Homebound (SH)	154	31	123	39	76	78	124	13	1	9	7	18,962
Consult. P. Imp. (SI)	103	22	81	39	35	68	61	22	3	10	7	19,677
Blind (SK)	165	25	140	33	85	80	109	30	7	10	9	18,076
Hearing Imp. (SL)	456	45	411	32	263	193	147	171	61	51	26	17,584
Learn. Disabled (SM)	1,799	202	1,597	33	775	1,024	291	879	320	233	76	17,366
Trainable (ST)	492	96	396	34	297	195	351	87	19	13	22	18,058
Consult. Ment. Hand. (SU)	264	85	179	37	81	183	94	79	24	49	18	20,287
Occup./Physical Therapy (NU)	317	26	291	32	281	36	206	60	10	10	31	16,537
TOTALS	12,081	2,639	9,442	34	5,897	6,184	5,038	3,988	1,222	1,201	632	17,880

Interpretation: Only teachers with primary assignment in special education were included in this analysis. There were 3,126 teachers of mentally handicapped pupils in 1979-80. Of this group 755 were male and 2,371 were female, with an average age of 33 years.

TABLE 6 - AGE DISTRIBUTION OF SPECIAL EDUCATION TEACHERS EMPLOYED IN 1979-80 SPECIAL EDUCATION ASSIGNMENTS IN MICHIGAN PUBLIC SCHOOLS

	Persons in Each Age Interval						Percent in Each Age Interval				
	Number	20-30	31-40	41-50	51-60	61/more	20-30	31-40	41-50	51-60	61/more
Mentally Hand. (SA)	3,126	1,703	742	337	295	49	54	24	11	9	2
Speech Corr. (SB)	1,528	730	489	206	93	10	48	32	13	6	1
Orth. Hand. (SC)	262	153	53	32	20	4	58	20	12	8	2
Social Worker (SD)	990	204	327	227	212	20	21	33	23	21	2
Emot. Imp. (SE)	1,687	1,126	386	131	38	6	67	23	8	2	-
Diagn. (SF)	119	10	37	46	26	0	8	31	39	22	-
School Psychologist (SG)	619	197	233	115	64	10	32	37	19	10	2
Homebound (SH)	154	54	39	24	32	5	35	25	16	21	3
Consult. P. Imp. (SI)	103	23	32	29	19	0	22	31	28	19	-
Blind (SK)	165	88	45	19	11	2	53	27	12	7	1
Hearing Imp. (SL)	456	264	108	55	25	4	58	24	12	5	1
Learn. Disabled (SM)	1,799	937	500	254	99	9	52	28	14	5	1
Trainable (ST)	492	258	129	58	37	10	52	26	12	8	2
Consult. Ment. Hand. (SU)	264	80	102	47	28	7	30	39	18	10	3
Occup./Physical Therapy (NU)	317	181	80	41	14	1	57	25	13	5	-
TOTALS	12,081	6,008	3,302	1,621	1,013	137	50	27	13	9	1

Interpretation: Only teachers with primary assignment in special education were included in this analysis. Of the 3,126 teachers of mentally handicapped pupils, 1,703 were 20 to 30 years old.

TABLE 7

RETURNING AND NEWLY EMPLOYED PROFESSIONAL PERSONNEL IN SPECIAL EDUCATION ASSIGNMENTS IN MICHIGAN PUBLIC SCHOOLS (1974-1980) SCHOOL YEAR

A. PERSONS RETURN FROM PRECEDING YEAR	74-75	75-76	76-77	77-78	78-79	79-80
NUMBER:	5,960	6,711	7,766	8,989	9,653	10,356
PROPORTION:	(.777)	(.751)	(.746)	(.817)	(.825)	(.834)
B. NEWLY EMPLOYED PERSONNEL						
NUMBER:	1,712	2,224	2,646	2,020	2,043	2,054
PROPORTION:	(.223)	(.249)	(.254)	(.183)	(.175)	(.166)
C. YEAR TOTALS						
NUMBER:	7,672	8,935	10,412	11,009	11,696	12,410
PROPORTION:	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)

INTERPRETATION: A COMPARISON OF SOCIAL SECURITY NUMBERS WAS USED TO ESTABLISH WHETHER A TEACHER WAS NEWLY EMPLOYED OR RETURNING FROM THE PRECEDING YEAR. THERE WERE 5,960 SPECIAL EDUCATION PROFESSIONAL PERSONNEL EMPLOYED IN 1974-75 WHO WERE ALSO EMPLOYED IN 1973-74. THIS 5,960 REPRESENTS .777 OF THE SPECIAL EDUCATION STAFF OF 7,672 EMPLOYED IN 1974-75. THERE WERE 1,712 OR .223 NEWLY EMPLOYED PROFESSIONAL PERSONNEL. COL. C TOTALS INCLUDE PERSONS WHO BECAME SUPERVISORS OF SPECIAL EDUCATION (AY).

TABLE 8 - ATTRITION OF SPECIAL EDUCATION PROFESSIONAL PERSONNEL (1973-1980)

1973-4 Teachers	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
a) Total Present	6,889	5,960	5,418	4,987	4,588	4,307	4,109
b) Percent Return	1.00	.87	.79	.72	.67	.63	.60
c) Total Not Return		929	1,471	1,902	2,301	2,582	2,780
1974-5 Teachers							
a) Total Present		7,610	6,711	6,079	5,551	5,189	4,890
b) Percent Return		1.00	.88	.80	.73	.68	.64
c) Total Not Return			899	1,531	2,059	2,411	2,720
1975-6 Teachers							
a) Total Present			8,848	7,766	6,952	6,417	6,013
b) Percent Return			1.00	.88	.79	.73	.68
c) Total Not Return				1,082	1,896	2,431	2,835
1976-7 Teachers							
a) Total Present				10,205	8,989	8,257	7,697
b) Percent Return				1.00	.88	.81	.75
c) Total Not Return					1,216	1,948	2,508
1977-8 Teachers							
a) Total Present					10,815	9,653	8,883
b) Percent Return					1.00	.89	.82
c) Total Not Return						1,162	1,932
1978-9 Teachers							
a) Total Present						11,592	10,356
b) Percent Return							.89
							1,236

TABLE 9 - ATTRITION OF SPECIAL EDUCATION TEACHERS EMPLOYED IN MICHIGAN PUBLIC SCHOOLS DURING SIX YEARS (1973-1980)

	A Teachers Employed 1973-4	B Teachers Remaining 1979-80	C Teachers Employed 1974-5	D Teachers Remaining 1979-80	E Teachers Employed 1975-6	F Teachers Remaining 1979-80	G Teachers Employed 1976-7	H Teachers Remaining 1979-80	I Teachers Employed 1977-8	J Teachers Remaining 1979-80	K Teachers Employed 1978-9	L Teachers Remaining 1979-80
Mentally Hand. (SA)	2,149	1,258 (.58)	2,228	1,425 (.64)	2,369	1,617 (.68)	2,771	2,103 (.76)	2,875	2,370 (.82)	2,945	2,630 (.89)
Speech Corr. (SB)	1,051	689 (.66)	1,139	785 (.69)	1,209	860 (.71)	1,392	1,079 (.78)	1,419	1,172 (.83)	1,479	1,328 (.90)
Orth. Hand. (SC)	189	103 (.54)	203	127 (.63)	214	148 (.69)	261	197 (.75)	266	213 (.80)	266	235 (.88)
Social Worker (SD)	789	491 (.62)	863	579 (.67)	939	657 (.70)	920	706 (.77)	931	780 (.84)	969	868 (.90)
Emot. Imp. (SE)	748	403 (.54)	887	522 (.59)	1,089	699 (.64)	1,252	917 (.73)	1,379	1,108 (.80)	1,552	1,365 (.88)
Diagn. (SF)	287	203 (.71)	254	185 (.73)	195	154 (.79)	173	148 (.86)	153	133 (.87)	141	132 (.94)
School Psychologist (SG)	196	122 (.62)	296	200 (.68)	398	284 (.71)	474	371 (.78)	527	444 (.84)	561	514 (.92)
Homebound (SH)	143	87 (.61)	148	93 (.63)	153	103 (.67)	171	123 (.72)	161	133 (.83)	157	144 (.92)
Consult. P. Imp. (SI)	148	74 (.50)	149	85 (.57)	137	82 (.60)	119	83 (.70)	119	92 (.77)	105	93 (.89)
Blind (SK)	69	42 (.61)	79	53 (.67)	86	60 (.70)	139	106 (.76)	151	124 (.82)	158	137 (.87)
Hearing Imp. (SL)	307	174 (.57)	344	209 (.61)	364	231 (.63)	428	317 (.74)	442	354 (.80)	447	389 (.87)
Learn. Disabled (SM)	-	-	110	69 (.63)	651	429 (.66)	906	674 (.74)	1,179	974 (.83)	1,487	1,344 (.90)
Trainable (ST)	416	254 (.61)	463	307 (.66)	502	351 (.70)	527	407 (.77)	509	437 (.86)	541	496 (.92)
Consult. Ment. Hand. (SU)	184	100 (.54)	203	119 (.59)	212	138 (.65)	207	147 (.71)	215	165 (.77)	226	198 (.88)
Occup./Physical Therapy (HU.)	57	35 (.61)	91	51 (.56)	142	90 (.63)	205	136 (.66)	219	169 (.77)	273	235 (.86)
TOTALS	6,733	4,035 (.60)	7,457	4,809 (.64)	8,660	5,903 (.68)	9,945	7,514 (.76)	10,545	8,668 (.82)	11,307	10,108 (.89)

Interpretation: Col. A shows that there were 2,149 teachers of mentally handicapped (SA) employed in 1973-74. Col. B shows 1,258 or 58% of the (SA) teachers were still employed in 1979-80 in special education assignments in Michigan Public Schools. This represents a loss of 42% of these personnel after six years.

TABLE 10

INITIAL PROVISIONAL CERTIFICATE ENDORSEMENTS IN SPECIAL EDUCATION FIELDS IN CALENDAR YEARS 1977 AND 1978

	Calendar Year			
	1977	1978	Change	Prop. Change
Mentally Handicapped (SA)	572	603	31	5.4%
Speech Correction (SB)	196	180	-16	-8.2%
Orthopedically Hand. (SC)	109	135	26	23.9%
Emotionally Dist. (SE)	319	279	-40	-12.5%
Homebound (SH)	108	134	26	24.1%
Visually Handicapped (SK)	59	64	5	8.5%
Hearing Impaired (SL)	62	59	-3	-4.8%
Learning Disabilities (SM)	135	156	21	15.5%
*TOTAL ENDORSEMENTS	1,560	1,610	50	3.2%

Interpretation: In 1978 there were 603 initial provisional certificate endorsements of teacher of mentally handicapped. This was 31 endorsements more than preceding year or 5.4% change.

TABLE 11

INITIAL PROVISIONAL CERTIFICATE ENDORSEMENTS IN SPECIAL EDUCATION FIELDS IN CALENDAR YEARS 1978 AND 1979

	Calendar Year			
	1978	1979	Change	Prop. Change
Mentally Handicapped (SA)	603	503	-100	-16.6%
Speech Correction (SB)	180	170	-10	-5.6%
Orthopedically Hand. (SC)	135	120	-15	-11.1%
Emotionally Dist. (SE)	279	290	11	3.9%
Homebound (SH)	134	120	-14	-10.4%
Visually Handicapped (SK)	64	48	-16	-25.0%
Hearing Impaired (SL)	59	61	2	3.4%
Learning Disabilities (SM)	156	136	-20	-12.8%
*TOTAL ENDORSEMENTS	1,610	1,448	-162	-10.1%

Interpretation: In 1979 there were 503 initial provisional certificate endorsements of teachers of mentally handicapped. This was 100 endorsements less than the preceding year or -16.6% change.

TABLE 12 NUMBER OF SPECIAL EDUCATION ENDORSEMENTS ON INITIAL PROVISIONAL CERTIFICATION RECOMMENDED BY MICHIGAN INSTITUTIONS DURING CALENDAR YEAR 1979

Institution	Codes for Special Education Certificates								Total Endors. in Sp.Ed.	No.of Pers. Cert. in Sp.Ed.	Prov. Cert. Recom. in Educ.
	SA	SB	SC	SE	SH	SK	SL	SM			
CMU	73	30	0	43	0	0	0	1	147	145	713
EMU	41	15	22	72	22	12	17	3	204	180	458
Grand Valley	63	0	13	60	13	0	12	20	181	98	232
Hope	0	0	0	11	0	0	0	13	24	23	90
Madonna	0	0	0	0	0	0	0	3	3	3	27
Marygrove	10	0	0	11	0	0	0	0	21	20	55
MSU	44	29	0	28	0	14	12	0	127	126	779
Nazareth	0	0	0	0	0	0	0	6	6	6	8
NMU	20	0	0	0	0	0	0	1	29	29	175
Oakland	0	0	0	2	0	0	0	2	4	3	108
Univ. of Detroit	0	0	0	0	0	0	0	10	10	10	27
Univ. of Michigan	13	1	4	17	4	4	1	1	45	38	422
WSU	71	19	63	1	63	8	0	0	225	96	348
WMU	33	6	15	24	14	8	0	2	102	85	558
MICH. TOTALS	368	108	117	269	116	46	42	62	1,119	862	
OUT-OF-MICH. TOTALS	135	62	3	21	4	2	19	74	329	270	
ALL U.S.	503	170	120	290	120	48	61	136	1,448	1,132	

Interpretation: In 1979 Central Michigan University (CMU) recommended 713 initial provisional certificates in education of which 145 were in special education.

Table 15 NUMBER OF SPECIAL EDUCATION ENDORSEMENTS ON INITIAL PROVISIONAL CERTIFICATES RECOMMENDED BY MICHIGAN INSTITUTIONS DURING CALENDAR YEAR 1978

Institution	Codes for Special Education Certificates								Total Endors. in Sp.Ed.	No.of Pers. Cert. in Sp.Ed.	Prov. Cert. Recom. in Educ.
	SA	SB	SC	SE	SH	SK	SL	SM			
CMU	91	22	0	48	0	0	0	0	161	157	671
EMU	58	18	16	68	16	16	15	2	209	190	491
Grand Valley	70	0	19	54	18	0	7	14	182	96	230
Hope	0	0	0	4	0	0	0	9	13	10	72
Madonna	0	0	0	1	0	0	0	3	4	4	28
Marygrove	8	0	0	10	0	0	0	1	19	18	56
MSU	61	36	1	34	1	24	16	0	173	163	866
Nazareth	0	0	0	0	0	0	0	12	12	12	13
NMU	26	4	0	0	0	0	0	0	30	30	147
Oakland	0	2	0	0	0	0	1	7	10	10	138
Sienna	0	0	1	0	1	0	0	0	2	1	50
Univ. of Detroit	0	0	0	0	0	0	0	10	10	10	33
Univ. of Michigan	10	3	7	11	7	4	3	5	50	39	413
WSU	74	8	64	0	64	7	0	2	219	92	327
WMU	35	26	21	19	21	8	0	2	132	111	554
MICH. TOTALS	433	119	129	249	128	59	42	67	1,226	943	
OUT-OF-MICH. TOTALS	170	61	6	30	6	5	17	89	384	314	
ALL U.S.	603	180	135	279	134	64	59	156	1,610	1,257	

Interpretation: In 1978 Central Michigan University (CMU) recommended 671 initial provisional certificates in education, of which 157 were in special education.

	Endorsement Codes									
	SA	SB	SC	SE	SH	SK	SL	SM	Endors	Persons
Andrews	0	1	0	0	0	0	0	0	1	1
Calvin	1	0	0	0	0	0	0	0	1	1
CMU	208	71	4	124	4	1	1	19	432	391
EMU	199	84	68	215	62	29	55	115	817	660
Grand V.	140	1	25	121	23	0	27	87	424	228
Hope	1	0	0	13	0	0	0	18	32	28
Madonna	2	0	0	11	0	0	1	57	71	68
Marygrove	17	2	1	25	1	1	1	35	83	68
MSU	133	57	9	79	5	39	27	27	376	343
Nazareth	0	0	0	0	0	0	0	7	7	7
NMU	78	16	1	5	1	0	0	35	136	120
Oakland	53	8	7	61	7	1	13	170	320	251
Saginaw	7	1	2	2	1	0	1	0	14	11
U. Detroit	3	0	0	2	0	0	0	50	55	51
U. Michigan	61	16	16	73	16	7	6	34	229	169
WSU	228	33	132	76	130	19	20	101	739	416
WMU	113	49	35	100	35	19	5	45	401	335
Michigan Totals...	1234	339	330	907	285	116	157	800	4138	3148
Out-of-State Totals...	171	74	8	36	8	5	28	101	431	356
All U.S. Totals...	1405	413	308	943	293	121	185	901	4569	3504

Table 14 TOTAL NUMBER OF NEW ENDORSEMENTS RECOMMENDED BY MICHIGAN AND OTHER INSTITUTIONS FOR SPECIAL EDUCATION TEACHERS IN CALENDAR YEAR 1979

Table 15 ABSENCES OF SPECIAL EDUCATION TEACHERS IN VARIOUS ASSIGNMENTS (1978-9)

Field	A. No. of Persons	B. Days Absent (Mean)	C. Absence Rate (B/180)	D. Salary (Mean)	E. Daily Rate (Mean, D/180)	F. Cost (Mean, B·E)	G. Total Cost (A·F)	H. Total Days Absent
A. Samples Greater Than 25								
Ment.H. (SA)	56	10.1	5.6	17380	101	967	54152	566
Speech (SB)	35	11.9	6.6	16773	93	1108	38780	416
Soc.Wk. (SD)	30	8.5	4.7	21724	121	1024	31260	255
Exot. H. (SE)	36	11.0	6.1	15954	89	1005	36180	396
Learn.D. (SM)	54	7.5	4.2	16377	91	710	38340	405
B. Samples Less than 15								
Psychol. (SG)	12	6.3	3.5	17617	98	604	7248	76
Ortho. (SC)	5	4.5	2.5	13348	74	346	1730	23
Homebound (SH)	4	2.4	1.3	18433	103	291	1164	10
Blind (SK)	6	9.5	5.3	17844	99	955	5730	57
Deaf (SL)	8	7.8	4.3	16977	94	733	5864	62
Cons.M.I. (SU)	6	14	7.8	19339	107	1389	8334	84
C. All Spec. Ed. Teachers	257	9.2	5.1	17474	97	904	232328	2364

TABLE 16 - COMPARISON OF TEACHER DAYS ABSENT IN SPECIAL EDUCATION AREAS AND DAYS SUBSTITUTE TEACHERS WITH SPECIAL EDUCATION ENDORSEMENTS WERE EMPLOYED (1978-79)

Endorsement Codes

	SA		SB		SC		SE		SK		SL		SM	
District	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs	Absnt	Subs
A	58	28.5	46	0	--	--	19	0	--	--	0	72	--	--
B	88.5	0	26	0	7.5	0	--	--	--	--	--	--	22.5	24.5
C	42.5	116	37	23.5	0	131	19.5	6	--	--	--	--	83.5	0
D	61.5	5.5	30.5	26	0	6.5	185	156	0	52.5	--	--	33.5	0
E	37.0	142	26.5	2	10.0	79	25	0	--	--	--	--	15.0	5
F	23	0	6	0	--	--	0	9	--	--	--	--	21.0	0
G	--	--	15	0	--	--	16	149	--	--	--	--	13.5	0
H	251	256	228	71	5.0	0	135	160	57	0	62.5	11	216.5	19
Totals	561.5	548.0	415	122.5	22.5	216.5	399.5	480	57	52.5	62.5	83	405.5	48.5

Interpretation: In school district "A" teachers of mentally impaired pupils (SA) were absent 58 days. Substitute teachers with endorsements in this area (SA), worked a maximum of 28.5 days in district "A" in 1978-79.